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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Maurizio Galimberti

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EXAMINER

HAUTH, GALEN H

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,530	Applicant(s) GALIMBERTI ET AL.	
	Examiner GALEN HAUTH	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-106 is/are pending in the application.
- 4a) Of the above claim(s) 85-106 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 47-83 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiromatsu et al. (PN 4814130).

a. With regards to claim 47, Shiromatsu teaches a method for manufacturing a product by extruding a polyolefin composition and a filler (abstract, mixing of elastomer and filler) followed by passing the material into a static mixer (col 2 ln 43-56).

b. With regards to claim 48, Shiromatsu teaches discharging the material from the extruder (5) into the static mixer (12) as seen in Fig. 1.

c. With regards to claim 49, Shiromatsu teaches cooling in the static mixer (col 2 ln 43-56).

d. With regards to claims 50 and 51, Shiromatsu teaches cooling the composition with a temperature of 100, 80, and 65 degrees Celsius (Table 2, Temperature of Cooling Zone).

e. With regards to claims 52 and 53, Shiromatsu teaches mixing polyolefin pellets with fire retardant master batch (col 5 ln 54-68) and metered into the extruder (col 6 ln 4-10).

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- f. With regards to claim 54, Shiromatsu teaches that the master batch contains condensation catalyst (col 5 ln 35).
- g. With regards to claim 55, Shiromatsu teaches that the master batch contains fire retardant (col 5 ln 33, a non-temperature sensitive material).
- h. With regards to claim 56, Shiromatsu teaches that the master batch contains ethylene ethyl acrylate copolymer (col 5 ln 30, a temperature sensitive material).
- i. With regards to claim 57, Shiromatsu teaches supplying a master batch and a reactive liquid mixture at separate points (col 6 ln 4-12).
- j. With regards to claim 58, Shiromatsu teaches including powder filler (col 4 ln 1).
- k. With regards to claim 59, Shiromatsu teaches using a master batch (col 5 ln 67).
- l. With regards to claims 60 and 63, Shiromatsu teaches using subdivided minor components (col 6 ln 4-12, the subdivision of the fire retardant master batch and the unsaturated alkoxysilane and organic peroxide comprise a subdivided master batch apart from the polyolefin pellets).
- m. With regards to claims 61 and 64, Shiromatsu teaches that the unsaturated alkoxysilane and organic peroxide are passed through an injection pump thus stirring the liquid mixture (col 6 ln 1-3).
- n. With regards to claim 62, Shiromatsu teaches that the master batch includes minor ingredients and the polyolefin used (col 5 ln 30-37).

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- o. With regards to claim 65, Shiromatsu teaches adding minor ingredients to the composition (col 5 ln 30-65).
- p. With regards to claim 66, Shiromatsu teaches that the master batch contains condensation catalyst (col 5 ln 35).
- q. With regards to claim 67, Shiromatsu teaches that the master batch contains ethylene ethyl acrylate copolymer (col 5 ln 30, a temperature sensitive material).
- r. With regards to claim 68, Shiromatsu teaches supplying a master batch and a reactive liquid mixture at separate points (col 6 ln 4-12).
- s. With regards to claim 69, Shiromatsu teaches including powder filler (col 4 ln 1).
- t. With regards to claim 70, Shiromatsu teaches using a master batch (col 5 ln 67).
- u. With regards to claims 71 and 74, Shiromatsu teaches using subdivided minor components (col 6 ln 4-12, the subdivision of the fire retardant master batch and the unsaturated alkoxysilane and organic peroxide comprise a subdivided master batch apart from the polyolefin pellets).
- v. With regards to claims 72 and 75, Shiromatsu teaches that the unsaturated alkoxysilane and organic peroxide are passed through an injection pump thus stirring the liquid mixture (col 6 ln 1-3).
- w. With regards to claim 73, Shiromatsu teaches that the master batch includes minor ingredients and the polyolefin used (col 5 ln 30-37).

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- x. With regards to claims 76 and 77, Shiromatsu teaches using a static mixer after the extruder as a cooling zone which functions by subdividing the resulting composition (col 2 ln 43-60).
- y. With regards to claim 78, Shiromatsu teaches using a static mixer after the extruder as a cooling zone which functions by subdividing the resulting composition, thus after the composition has been cooled a subdivided composition emerges from the static mixer (col 2 ln 43-60).
- z. With regards to claim 79, Shiromatsu teaches using a static mixer which mixes the subdivided composition as it passes through the mixer.
- aa. With regards to claims 80 and 81, Shiromatsu teaches mixing polyolefin pellets with fire retardant master batch (col 5 ln 54-68) and metered into the extruder (col 6 ln 4-10). Shiromatsu teaches using a static mixer after the extruder as a cooling zone which functions by subdividing the resulting composition, thus after the composition has been cooled a subdivided composition emerges from the static mixer (col 2 ln 43-60).
- bb. With regards to claim 82, Shiromatsu teaches passing the composition through a die after the static mixer (Fig. 1).
- cc. With regards to claim 83, Shiromatsu teaches continuous stirring (col 2 ln 57-60).

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Shiromatsu et al. (PN 4814130) as applied to claim 82 above.

With regards to claim 84, Shiromatsu as applied to claim 82 above teaches a method for static mixing of a composition mixed from an extruder, but does not teach that the discharge is batch wise; however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a batch wise process as such is an obvious variant of continuous processing in the art.

Response to Arguments

6. Applicant's arguments with respect to claims 47-84 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GALEN HAUTH whose telephone number is (571)270-

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5516. The examiner can normally be reached on Monday to Thursday 8:30am-5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571)272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GHH/

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791